



*Institute for Innovation  
and Improvement*



Delivering quality and value  
Focus on: productivity and efficiency



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# Introduction

## Purpose

As part of the Delivering Quality and Value strategy, the NHS Institute is working closely with the Department of Health (DH) Productive Time Programme, the NHS Integrated Service Improvement Programme and the wider NHS to support improvements in systemic productivity and efficiency, which is now a priority for all NHS organisations.

This document, one of a series being developed under Delivering Quality and Value, is designed to help commissioners and providers identify where to focus for the greatest potential productivity and efficiency gains. It concentrates on areas with the highest variation in practice and performance across the NHS, where improvements are realistically achievable. For each potential improvement we have:

- given a sense of the scale of possible gains;
- suggested areas for benchmarking your local performance and setting targets for improvement and benefits realisation;
- highlighted ways in which the quality and value of care can be improved by both providers and commissioners; and
- signposted links to further support and information resources.

The improvements that can be made are real, not theoretical. In each area addressed here, practice and performance vary widely across the NHS. Following the lead taken by top performers will help improve the quality and value of services everywhere.

## Context




Acute hospital treatment accounts for more than half of NHS spending. As a result, it offers the greatest scope for savings. However, much of this potential can only be released if all sectors of the local health communities work together. The advice in this document can play an important part in helping local health communities review local development plans (LDPs) and develop integrated service improvement plans (ISIPs) for 2006/07 onwards.

NHS commissioning and providing organisations can meet the need for greater productivity and free up resources to improve services by putting in place robust programme and project management to deliver transformational change across local health systems. Integrated change programmes maximise potential benefits by aligning national and local enablers for improvement such as high impact changes (eg the former Modernisation Agency's '10 High Impact Changes' and the recent HR high impact changes), workforce reforms and NHS Connecting for Health enablers (eg 'Choose and Book' and PACS). Commissioners and providers should make sure that the suggested activities in this document are incorporated into the local health communities' ISIPs.

The NHS Institute for Innovation and Improvement is committed to identifying ways that will help improve NHS efficiency and productivity. We welcome your feedback and contributions to our future work. If you would like to be involved, have experiences of improving the quality and value of services that you would like to share more widely, or have any general comments, please contact the Delivering Quality and Value team at [productivity@institute.nhs.uk](mailto:productivity@institute.nhs.uk) or call **02476 475 811**.

## How to use the information

Each area of focus contains advice for commissioners and providers. The advice is categorised using the enablers of 'people', 'process' and 'information/technology'.

Enabler		Examples
	People	<ul style="list-style-type: none"> <li>• Redesigned and extended roles</li> <li>• Multidisciplinary working</li> <li>• Skill mix changes</li> <li>• Setting individual and group operational performance standards</li> </ul>
	Process	<ul style="list-style-type: none"> <li>• Improvement of assessment processes, eg move from an 'admit to decide' system to one that facilitates 'decide to admit'.</li> <li>• Using practice-based commissioning to incentivise the proactive management of potential high impact users.</li> </ul>
	Information/technology	<ul style="list-style-type: none"> <li>• Analysis of the impact of patients with frequent admissions, and identification of where these are above average levels.</li> <li>• Identification of ambulatory care sensitive conditions accounting for disproportionate hospital admissions and resources.</li> <li>• Identification of key performance metrics for monitoring by the trust board on a regular basis.</li> </ul>

# Reduce avoidable emergency admissions

1

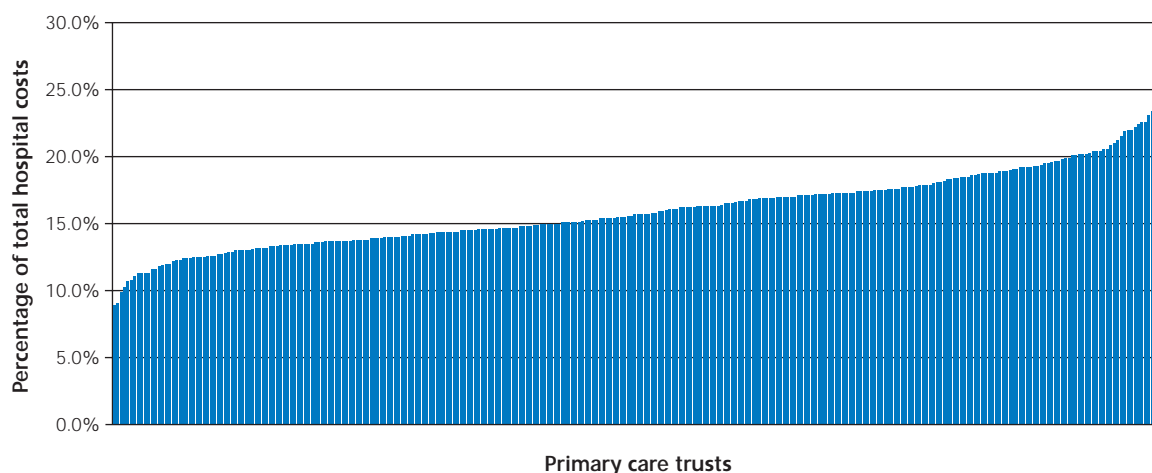
Patients who frequently attend hospital for emergency care account for a large proportion of hospital costs. Good community treatment pathways and hospital assessment processes can reduce the requirement for hospitalisation, reduce costs and improve a patient's quality of life.

In 2004/05, the NHS spent £1.3bn on admissions for people with 19 common conditions, for which community treatment could have reduced the need for hospitalisation. A 30% reduction in this total would release £437m for the NHS.

## Potential areas for improving quality and value

### High intensity users

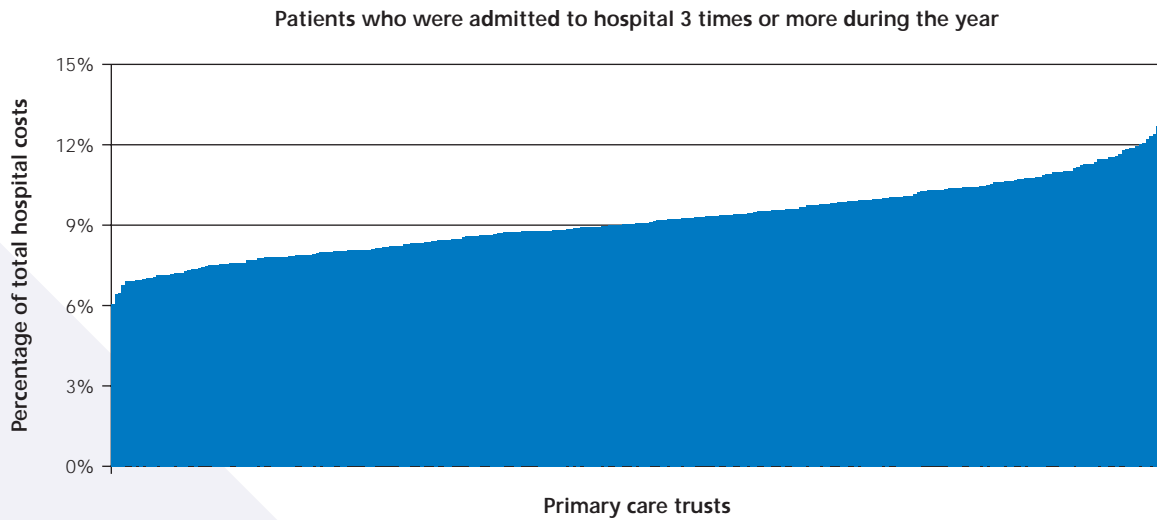
Patients who were admitted to hospital three times or more during the year



Trust level data 2004/05

- High intensity users are defined as those patients who are admitted to hospital three or more times during a year.
- High intensity users account for a large proportion of total hospital costs – ranging from between less than 10% for some primary care trusts (PCTs) to nearly 25% for others.
- Proactive management of potential high intensity users could reduce hospital admissions and reduce costs – especially for those trusts where high impact users account for a larger than average proportion of admissions.
- If the PCTs in the higher quartile reduced admissions to the average, the **potential saving is £2.46m per PCT**.

## Ambulatory care sensitive conditions



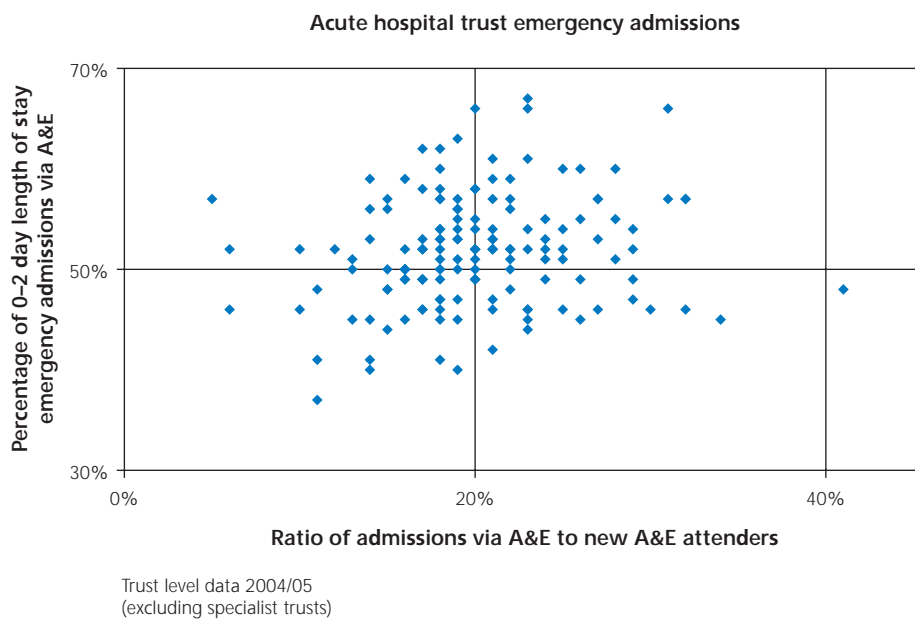
Trust level data 2004/05

- Ambulatory care sensitive (ACS) conditions are defined as the 19 conditions for which community-based care or treatment can avoid the need for hospital admissions. They are also often the conditions which result in patients being admitted several times during a year.
- Individual PCTs' costs for patients with ACS conditions account for between 6% and 13.2% of their total hospital costs.
- Developing and targeting community services for ACS conditions can reduce hospital admissions.
- If the PCTs in the higher quartile reduced ACS admissions by 25%, the **potential saving is £94m**.

**Emergency admissions by ACS condition 2003/04**

ACS condition name	No of spells	Cost in £m
COPD	106,517	253
Angina (without major procedure)	79,228	134
Ear, nose and throat infections	72,831	52
Convulsions and epilepsy	64,664	77
Congestive heart failure	62,582	211
Asthma	61,264	64
Flu and pneumonia (>2 months old)	56,616	158
Dehydration and gastroenteritis	54,402	96
Cellulitis (without major procedure)	45,522	87
Diabetes with complications	17,686	42
Pyelonephritis	8,469	13
Iron-deficiency anaemia	8,268	20
Perforated/bleeding ulcer	7,327	26
Dental conditions	6,207	8
Hypertension	5,379	9
Gangrene	5,309	32
Pelvic inflammatory disease	5,070	9
Vaccine-preventable conditions	2,326	5
Nutritional deficiencies	53	5
<b>Grand total</b>	<b>669,720</b>	<b>1,301</b>

## Short stay emergency admissions



- The proportion of patients presenting at A&E who are admitted varies between trusts from around 10% to over 30% (although this will be influenced by the local configuration of emergency services).
- The number of patients with a length of stay of 0–2 days as a proportion of total emergency admissions varies between 40% and over 60%.
- Trusts that admit a high proportion of A&E attenders, and/or have a high proportion with a length of stay of less than two days may have the potential to reduce this with better assessment processes and improved primary care management of patients.
- If above average trusts reduced short stay admissions to the average, the **potential saving is £28m**.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"><li><b>i</b> Analyse the impact of patients with frequent admissions and identify where these are above expected average levels for the case mix.</li><li><b>i</b> Identify which of the 19 ACS conditions account for a disproportionate level of hospital admissions and resources.</li><li><b>i</b> Implement local systems to feedback to GPs which of their patients fall into this category.</li><li><b>&gt;</b> Use practice-based commissioning to incentivise the proactive management of potential high impact users.</li><li><b>&gt;</b> Work within the whole system to ensure that possible alternatives to admission are aligned rather than inappropriately competing. Services such as rapid access clinics, in-reach and out-reach teams, intermediate care and other health and social community-based services need to align performance responsiveness to support admission avoidance. For example, admission avoidance schemes should consider a response time to delivery of service of four hours or less.</li></ul>	<ul style="list-style-type: none"><li><b>i</b> Analyse your A&amp;E attenders-to-admissions ratio and the proportion of short stay admitted emergency patients to identify where these are above expected average levels for the case mix.</li><li><b>i</b> Examine and improve assessment processes to move from an 'admit to decide' system to one that facilitates 'decide to admit'. Admission is appropriate only if there are clinical reasons for assessment taking more than four hours.</li><li><b>i</b> Identify the diagnoses that contribute most to the overall cost of high impact users.</li><li><b>&gt;</b> Implement a system for identifying high impact users to inform detailed discussions with commissioners about alternative care for these individuals and groups.</li></ul>



## Resources

### Benchmarking performance information for PCTs and trusts

- Your PCT high impact user and trust ACS data compared with national range
- Your trust A&E admission ratio and short stay patient ratio  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- Patients at risk of re-hospitalisation case finder tool (PARR)  
[www.kingsfund.org.uk/health\\_topics/patients\\_at\\_risk/index.html](http://www.kingsfund.org.uk/health_topics/patients_at_risk/index.html)
- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)

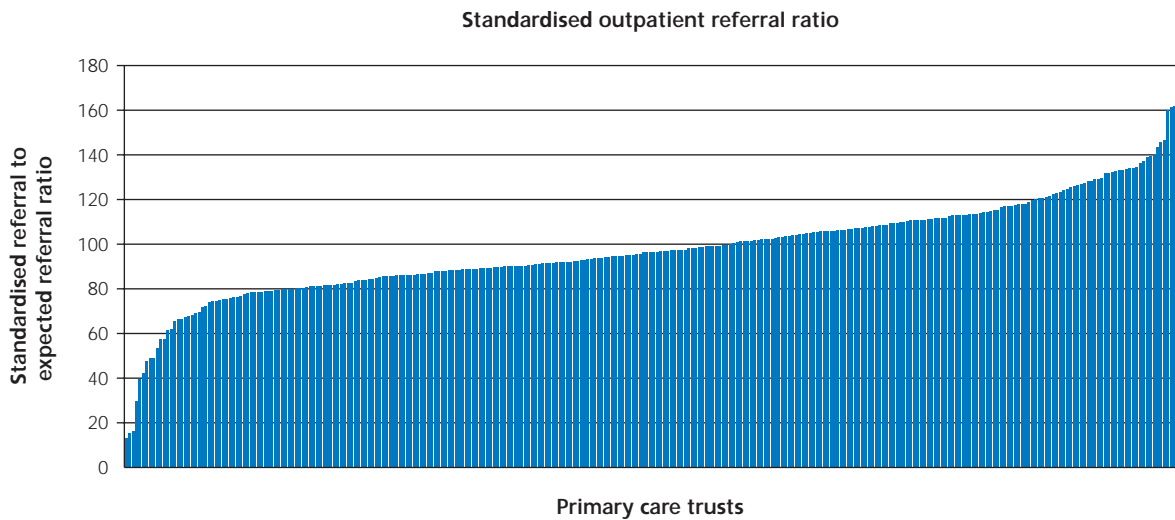
2

# Reduce unnecessary outpatient appointments, follow-ups and DNAs

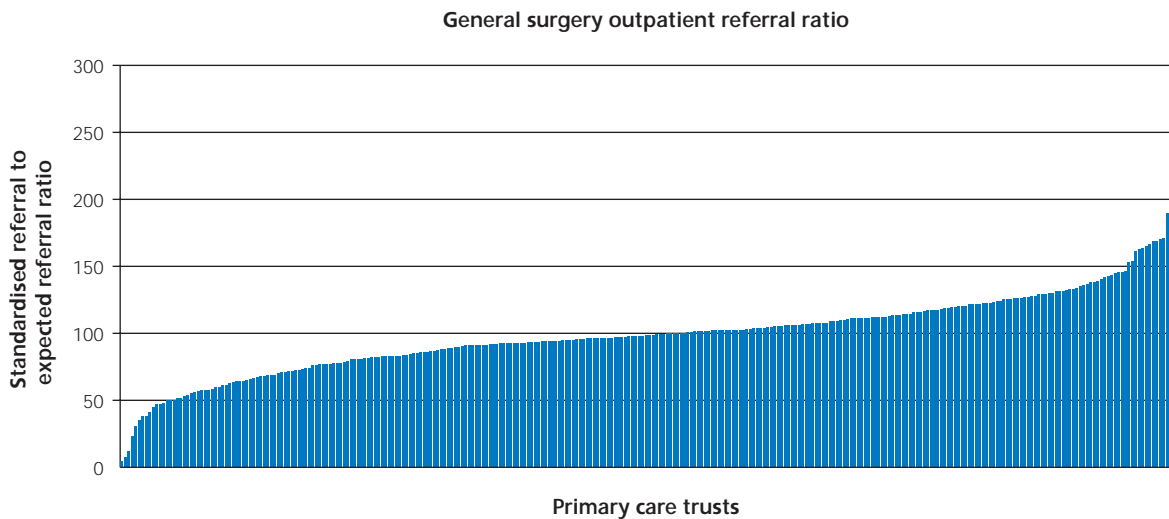
Reducing unnecessary outpatient appointments could reduce outpatient activity by up to 50% overall for some primary care trusts. Reducing all above average return appointments or follow-ups to the average would save over 800,000 return appointments and save £50m.

## Potential areas for improving quality and value

### Outpatient referrals



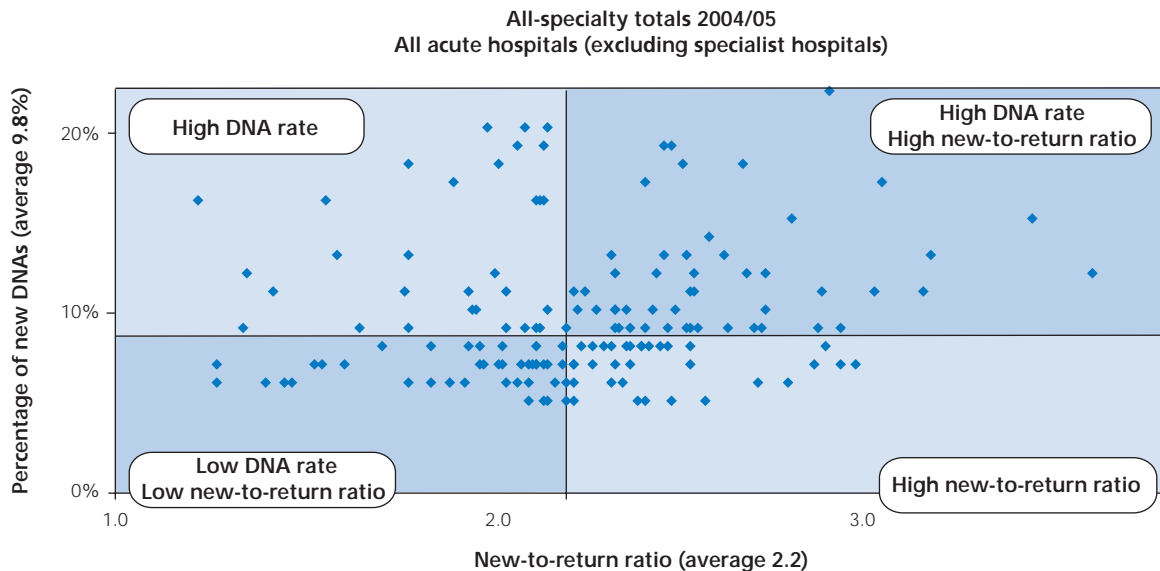
Trust level data 2004/05



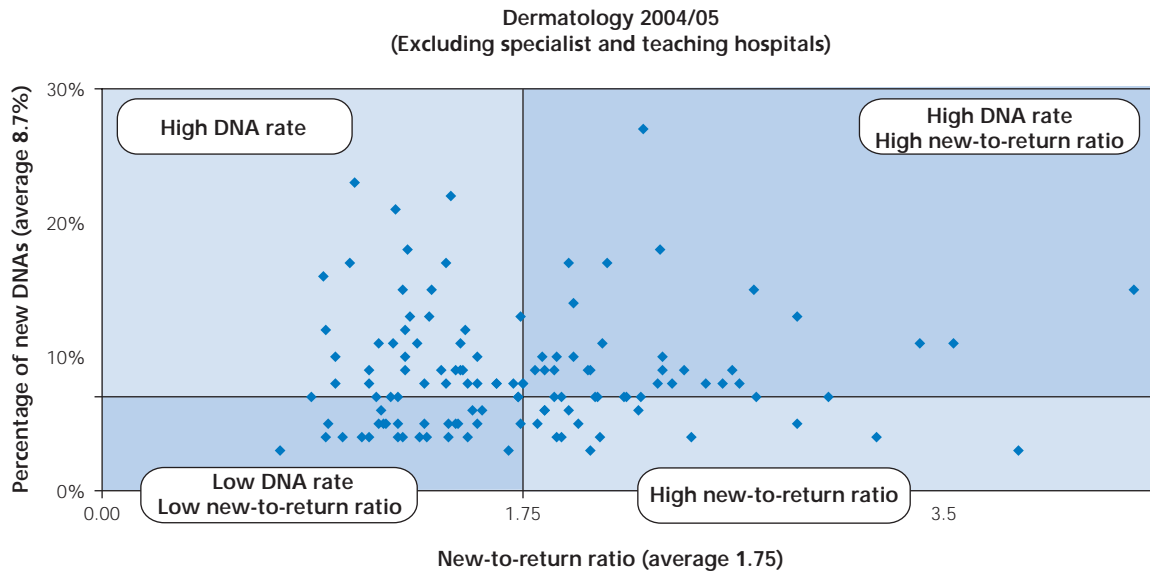
Trust level data 2004/05

- Standardised referral ratios are adjusted to compensate for the age, sex and deprivation of each PCT's population. The standardised referral ratio can then be expressed as a ratio of the expected referral ratio. A ratio of 100 means that the referral rate is in line with national averages given the age, sex and deprivation of the PCT. A figure of 110 would mean that referrals are 10% higher than expected given these factors.
- There is wide variation in standardised referral rates per head of population for all outpatient specialties. Overall standardised referral rates for outpatients range between 75% and 150% of the expected rate. For some PCTs, general surgical outpatient referral rates are as high as 200% of the expected rate.
- If referral rates were reduced to the expected standardised average, 987,000 appointments would be saved with a **potential cost reduction of £141m**.

## Follow-ups and DNAs



- New-to-return (or follow-up) ratios of all specialties vary by over two and a half times between trusts.
- Some trusts have both high new-to-return ratios and high DNA rates.
- Overall did not attend (DNA) rates are four times higher in some trusts than others.
- If trusts with above average new-to-return ratios and DNA rates reduced to the average then the **potential saving in acute trusts is £80m**.



- Dermatology DNA rates are five times higher in some trusts than others.
- Some trusts have both very high new-to-follow-up ratios and high DNA rates in this specialty.
- If above average trusts were reduced to the average DNA and new-to-return ratios then the **potential saving is around £10m**.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li><span style="color: #1a237e;">i</span> Analyse your outpatient referral, new-to-return ratios and DNA rates to identify where these are out of line with the expected levels.</li> <li><span style="color: #1a237e;">i</span> Implement local systems to monitor and feedback to GPs on referral rates.</li> <li><span style="color: #1a237e;">▶</span> Use practice-based commissioning to incentivise the active management of referrals.</li> <li><span style="color: #1a237e;">▶</span> Use the commissioning processes to determine, in discussion with providers, an appropriate new-to-return ratio.</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: #1a237e;">i</span> Analyse your new-to-return ratios and DNA rates to identify where these are out of line with the expected levels.</li> <li><span style="color: #1a237e;">i</span> Agree changes to clinical practices and processes to bring new-to-return ratios for all specialties in line with expected national performance and local standards.</li> <li><span style="color: #1a237e;">▶</span> Use techniques such as telephone follow-up to eliminate the need for return appointments in the hospital.</li> <li><span style="color: #1a237e;">▶</span> Actively manage DNA rates using a booking system allowing patient choice, and telephone reminders and text messaging.</li> <li><span style="color: #1a237e;">i</span> Monitor follow-up ratios and DNA rates by specialty and report this to the board on a regular basis.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your PCT standardised outpatient referral ratios compared with national range
- Your trust DNA rates and new-to-follow-up ratios  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *10 High Impact Changes*, NHS Modernisation Agency, 2004  
[www.institute.nhs.uk/products](http://www.institute.nhs.uk/products)
- Managing outpatient referrals  
[www.dh.gov.uk/assetRoot/04/12/81/06/04128106.pdf](http://www.dh.gov.uk/assetRoot/04/12/81/06/04128106.pdf)
- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
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- *Managing Successful Programmes*, Office of Government Commerce  
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- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)

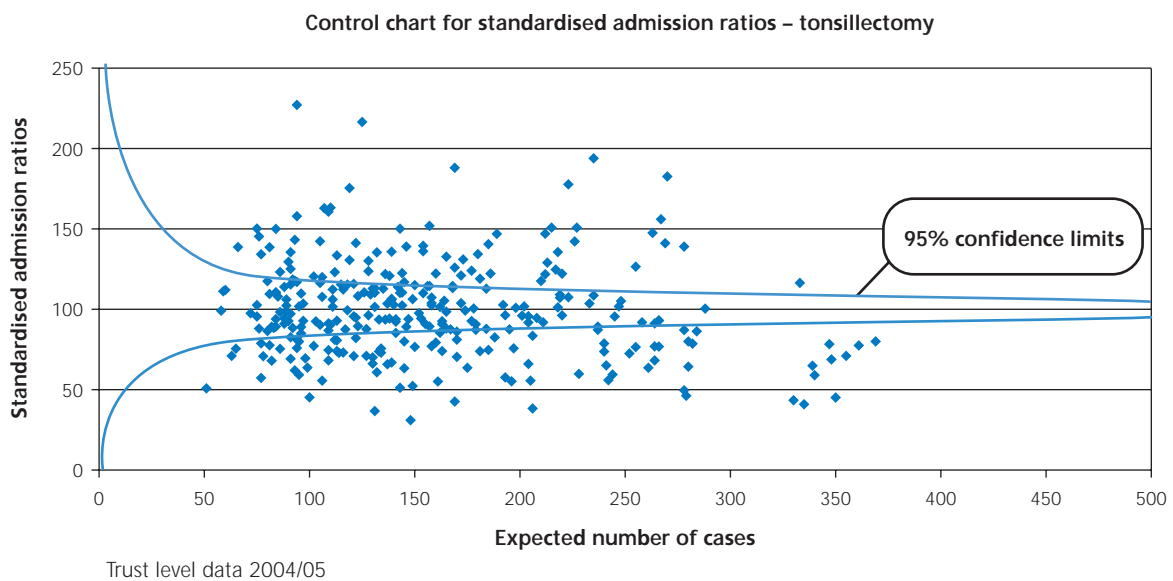
## Avoid unnecessary procedures

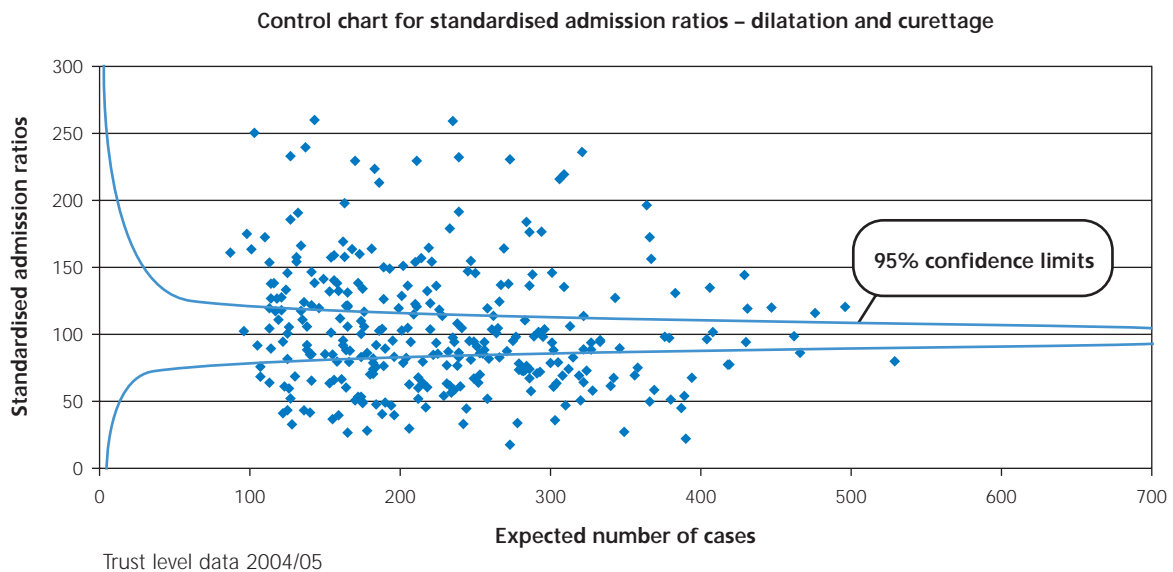
# 3

Some elective surgical procedures are carried out much more frequently in some areas than others. This suggests that surgical procedure thresholds vary significantly. The commissioning process can be used to establish protocols for how patients are managed and when surgery is appropriate, or not.

### Potential areas for improving quality and value

Procedure thresholds





- Standardised admission ratios are adjusted to compensate for the age, sex and deprivation of each PCT population. The graphs on the left and above are funnel plots, which demonstrate the wide amount of variability between the standardised admission ratio and the expected ratio for PCTs. Plots within the funnel can be considered normal (with 95% confidence). Plots that appear outside the funnel suggest an abnormally high or low admission ratio.
- Tonsillectomy, dilatation and curettage, hysterectomy, lower back surgery and myringotomy (grommets) all have standardised admission ratios that, when compared with the expected ratio, vary two to fivefold between PCTs.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li><span style="color: #2e3192;">▶</span> Analyse your standardised admission ratios for the five procedure areas highlighted above to identify where these are out of line with the expected levels.</li> <li><span style="color: #2e3192;">▶</span> Use the commissioning processes, in discussion with providers, to establish protocols for how patients are managed and procedure thresholds for surgery.</li> <li><span style="color: #2e3192;">▶</span> Use practice-based commissioning to incentivise the active management of referrals.</li> <li><span style="color: #2e3192;">i</span> Implement local systems to monitor and feedback to GPs on admission rates.</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: #2e3192;">▶</span> Analyse your standardised admission ratios for the five procedure areas highlighted above to identify where these are out of line with the expected levels.</li> <li><span style="color: #2e3192;">i</span> Identify the drivers behind areas where admission ratios are higher than expected for the population.</li> <li><span style="color: #2e3192;">i</span> Monitor admission ratios for selected specialties and report this to the board on a regular basis.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your PCT standardised admission ratios compared with national range  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)



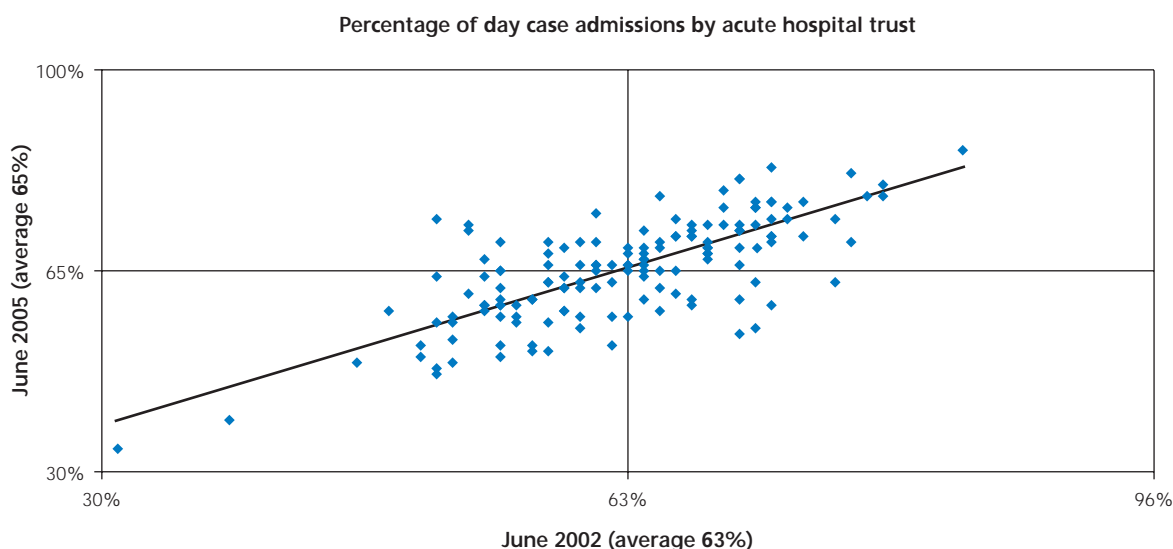
## 4

## Improve day case performance

Day case surgery is cheaper than provision of inpatient surgery and patients prefer it. The '10 High Impact Changes' recommended that day surgery should be treated as the preferred form of surgery unless there is good reason to perform it differently. However, most hospitals perform operations on an inpatient basis more frequently than is recommended, and the progress towards a higher proportion of day cases is slow.

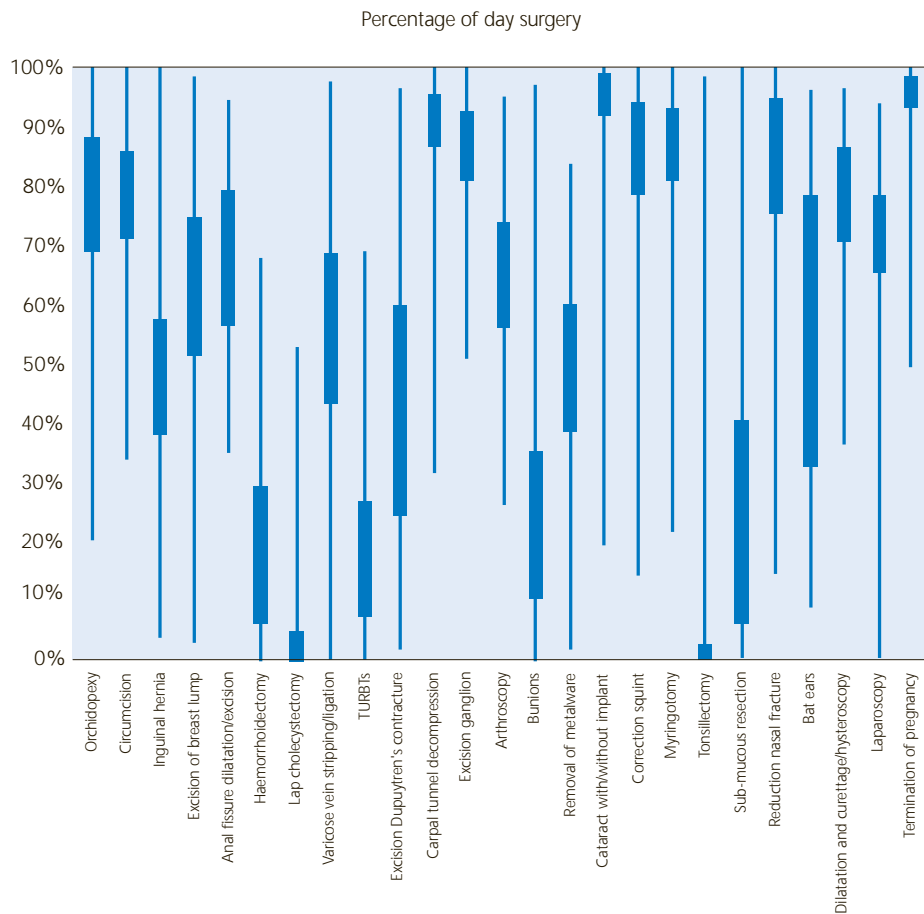
### Potential areas for improving quality and value

Improvement in day case rates



- The Healthcare Commission recommends that if all appropriate procedures were treated as day cases, trusts should be able to achieve overall day case rates of 75%.
- Progress towards this has been slow. Most trusts made little improvement to day case rates between 2002 and 2005. The average overall improvement was only 2% over this period.
- If all acute trusts achieved an average of 75% day cases across all specialties, then the **potential saving is at least 390,000 bed days (£88m based on £225 per elective inpatient bed day)**.

## Variation in day surgery rates between NHS trusts



Note: 50% of NHS trusts in England have day surgery rates for these procedures that fall within the range indicated by the boxes. The thin protruding lines show the day surgery rates for these procedures that are achieved by the top and bottom 25% of trusts. Source: Healthcare Commission from HES 2003/2004 (Hospital Episode Statistics, DH)

- The chart above summarises the spread of day surgery rates between trusts. It does not follow that trusts with comparatively high day surgery rates for one basket procedure have high rates for all. For example, the trust that is ranked highest for day case removal of metalware is ranked lowest for day cases for circumcisions.
- There is a strong correlation of high day case rates between procedures within the same specialty – suggesting that this is where the focus for improvement should be.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li><b>i</b> Analyse and compare your providers' day case rates by specialty and/or procedure and their change-over time.</li> <li><b>➤</b> Use the commissioning processes to specify, in discussion with providers, an appropriate level of day cases for each procedure. The British Association of Day Surgery is currently updating the list of day surgery procedures to include target rates by procedure to optimise day case rates.</li> </ul>	<ul style="list-style-type: none"> <li><b>i</b> Analyse your day case rates by procedure and specialty to identify where there is scope for improvement.</li> <li><b>i</b> Focus improvement effort on specialties, identifying and overcoming barriers to change.</li> <li><b>➤</b> Examine possible procedure shift from inpatient to 23-hour stay, 23-hour stay to day case and day case to outpatients or primary care.</li> <li><b>i</b> Monitor day case rates by specialty and report this to the board on a regular basis.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your trust day case rates change over time  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *10 High Impact Changes*, NHS Modernisation Agency, 2004  
[www.institute.nhs.uk/products](http://www.institute.nhs.uk/products)
- *Acute Hospital Portfolio Review – Day Surgery*: July 2005  
[www.healthcarecommission.org.uk/assetRoot/04/01/83/90/04018390.pdf](http://www.healthcarecommission.org.uk/assetRoot/04/01/83/90/04018390.pdf)
- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
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- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)
- British Association of Day Surgery (BADS) *Directory of Procedures*  
[www.bads.co.uk](http://www.bads.co.uk)

# 5

## Reduce wasted bed days

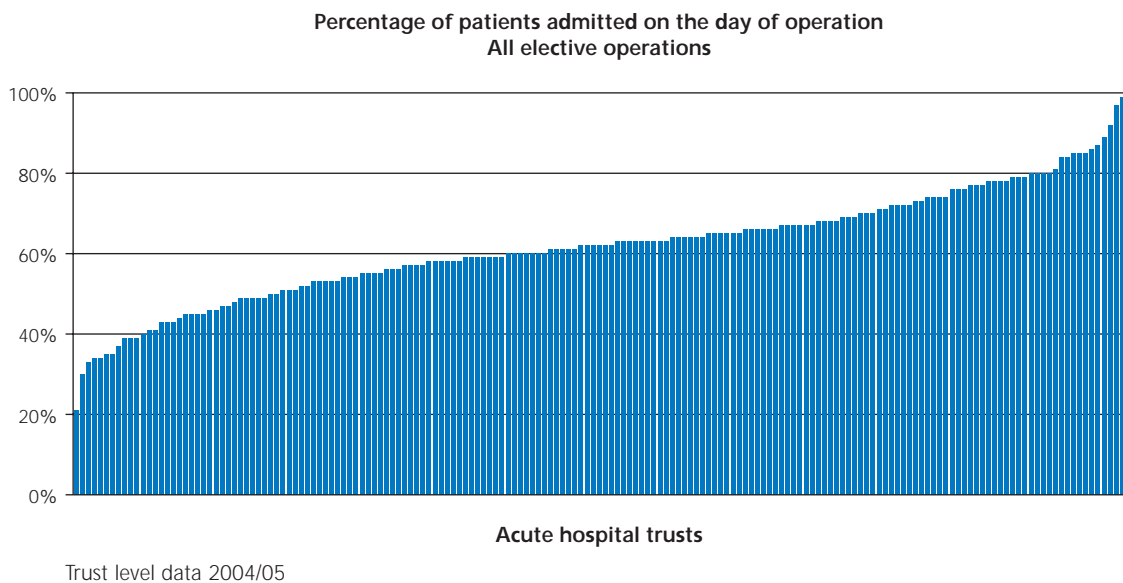
Admitting patients to beds a day or days in advance of procedures for non-clinical reasons wastes valuable hospital bed space and increases costs. Similarly, patients are often admitted to hospital but have no main procedure carried out, either because they were admitted for diagnosis only (which could have been carried out without an admission), or were found to be unfit for surgery (which could be picked up by pre-operative assessment).

### Potential areas for improving quality and value

Admission before day of procedure – overall

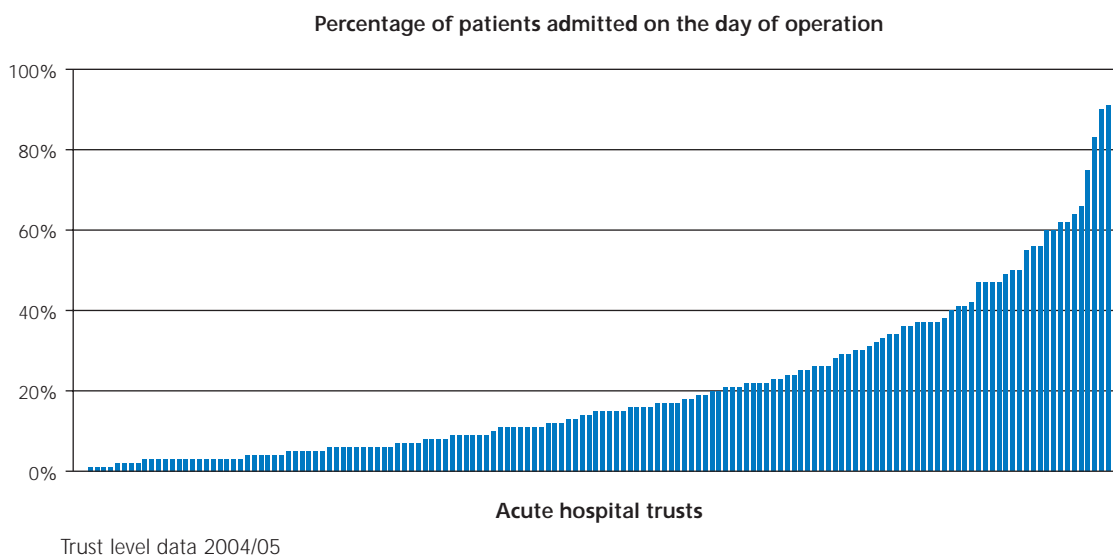
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REDUCE WASTED  
BED DAYS



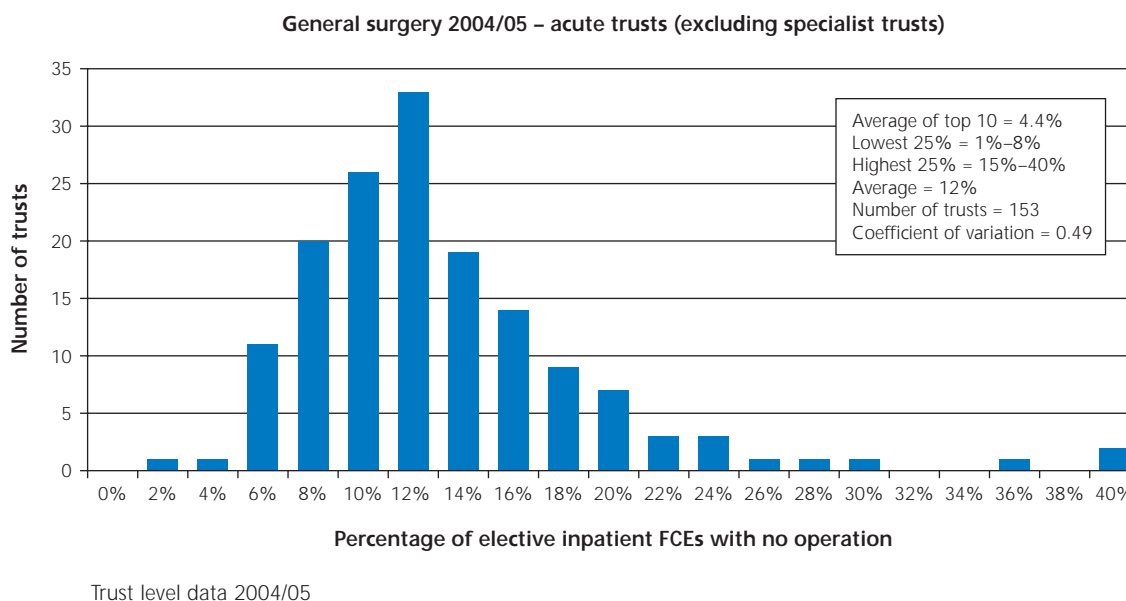
- Patients are admitted to hospital the day before their main procedure either because of clinical and social reasons, or owing to custom and practice.
- Some trusts admit a small percentage of patients the day before their main procedure whereas others admit over 60% of patients the day before their main procedure.
- Pre-operative stays accounted for 1.05m bed days in 2004/05.
- If above average trusts were reduced to the average, **the potential saving is at least 390,000 bed days.**

## Admission before day of procedure – hip replacement



- Hip replacement elective admissions where the operation was performed on the day of admission vary between trusts from virtually 0% to nearly 100%.
- If all above average trusts were reduced to the average, the **potential saving is at least 12,347 bed days**.

## Admission with no procedure



- Patients can often be admitted to hospital for diagnoses that could have been carried out without admission, or are found to be unfit for surgery, which results in them being discharged without a surgical procedure taking place.
- The percentage of patients who are admitted but have no surgical procedure varies between trusts. For example, in general surgery this ranges between less than 6% and over 24%.
- If above average trusts were reduced to the average, the **potential saving is at least 27,000 bed days and £13m**.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li><b>i</b> Analyse your providers' rates of admitting patients before the day of surgery, and of admission without procedure, to identify where these are out of line with the expected levels.</li> <li><b>▶</b> Use the commissioning processes to determine, in discussion with providers, appropriate protocols for admission and diagnostics.</li> </ul>	<ul style="list-style-type: none"> <li><b>i</b> Analyse your admission before day of surgery and admission without procedure rates for all specialties to identify where these are out of line with the expected levels.</li> <li><b>i</b> Agree changes to clinical practices and processes to bring admission practices for all specialties in line with expected national performance and agreed local standards.</li> <li><b>▶</b> Reduce the need for patients to be admitted in advance of procedures by the use of: <ul style="list-style-type: none"> <li>• pre-operative assessment;</li> <li>• surgical admission units allowing patients to go directly to theatre;</li> <li>• improved planned bed management.</li> </ul> </li> <li><b>▶</b> Reduce the level of patients admitted without a procedure by the use of: <ul style="list-style-type: none"> <li>• improved pre-operative assessment;</li> <li>• improved access to diagnostics on an outpatient basis.</li> </ul> </li> <li><b>i</b> Monitor admission before day of surgery and admission without procedure rates by specialty and report this to the board on a regular basis.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your admission prior to day of procedure rate compared with national range
- Your trust admission with no procedure rates compared with national range  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)

# Improve the accuracy of clinical coding

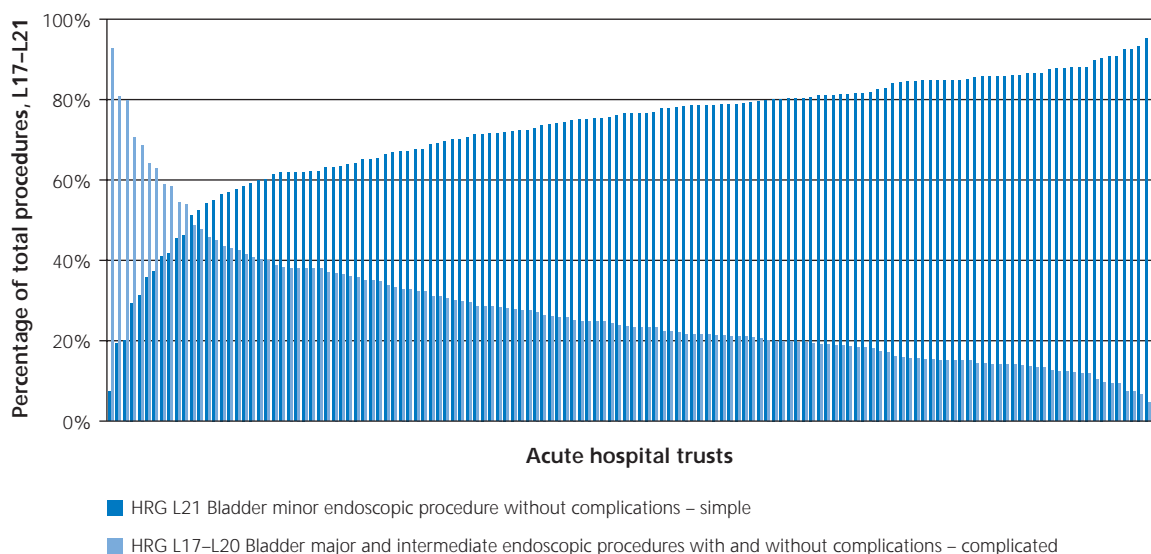
# 6

Clinical coding is the basis of NHS information about clinical interventions, activity and outcomes. It is also now the basis for the Payment by Results system by which commissioners will pay providers for the delivery of individual healthcare procedures. Accurate coding is critical for both providers and commissioners, as it will be used for decision-making, clinical performance comparisons and efficiency evaluation.

## Potential areas for improving quality and value

### Individual procedure coding

Bladder procedures by two groups – complicated and simple – by trust



Trust level data 2004/05

- Endoscopic bladder examinations are classified as major, intermediate or minor and with or without complications. This results in five Healthcare Resource Group (HRG) classifications:
  - L17 Bladder major endoscopic procedure;
  - L18 Bladder intermediate endoscopic procedure with complications;
  - L19 Bladder intermediate endoscopic procedure without complications;
  - L20 Bladder minor endoscopic procedure with complications;
  - L21 Bladder minor endoscopic procedure without complications.



- The proportion of procedures that fall into the 'minor without complications' HRG classification compared with the total of all five HRGs varies from 5% to over 90% between trusts.
- The difference in cost is significant. A major procedure (non-emergency) has a tariff cost of £3,538 compared with £1,158 for a minor procedure without complications.
- Ensuring that the coding is correct can make a large difference to overall costs. The trust with the highest percentage of complex procedures would have charged more than twice as much (£1,740,000) for performing 1,000 endoscopies as the trust with the lowest percentage of complex procedures recorded (£758,000).

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li><b>i</b> Identify unusual distributions of patients across particular HRG categories.</li> <li><b>i</b> Monitor changes in distributions of patients across particular HRG categories over time.</li> <li><b>i</b> Monitor rates of short stay admissions from A&amp;E and work in partnership with providers to review any increasing rates of short stay admissions from A&amp;E.</li> </ul>	<ul style="list-style-type: none"> <li><b>i</b> Identify unusual distributions of patients across particular HRG categories.</li> <li><b>i</b> Audit clinical coding practice to identify areas that may not be accurately reflecting the procedures performed.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your trust position on the endoscopic procedures coding distribution  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)

## Reduce variation in length of stay

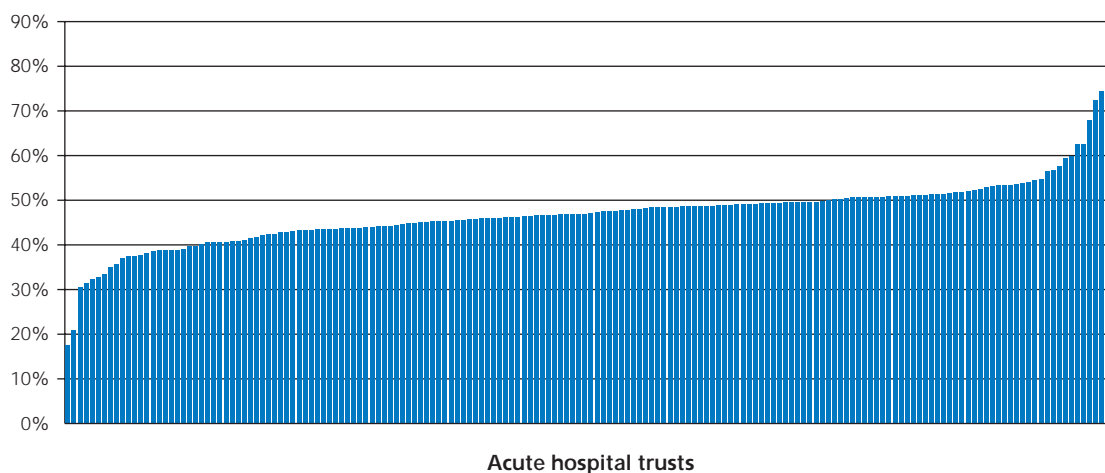
7

There is huge variation between hospitals in the length of time patients stay in hospital for particular treatments – this is equally true of emergency and elective patients. One of the most effective steps to reduce length of stay is improving the discharge process so that patients are discharged as soon as they are ready rather than when the system is ready to discharge them.

### Potential areas for improving quality and value

#### Weekend discharge rates

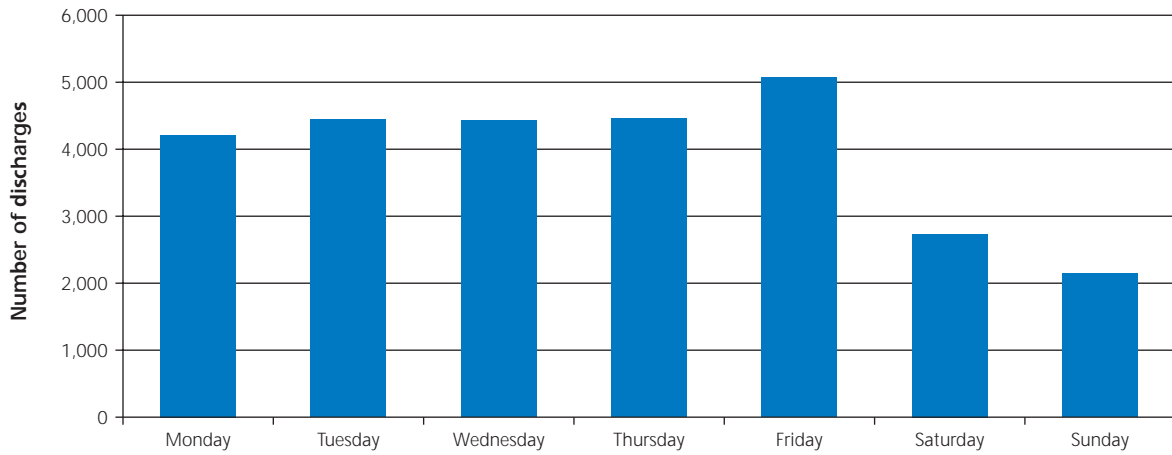
Percentage drop in weekend discharges of patients admitted as emergencies



Trust level data 2004/05

- There is wide variation in the level of discharge of patients from hospital at weekends compared with weekdays. Some of this is planned as part of the elective admission process, but this variation is also evident for medical emergency patients whose admission rate is reasonably constant throughout the week.
- For patients admitted as an emergency, the reduction in the weekend discharge rate (compared with the weekday average) varies from over 75% to less than 40%.

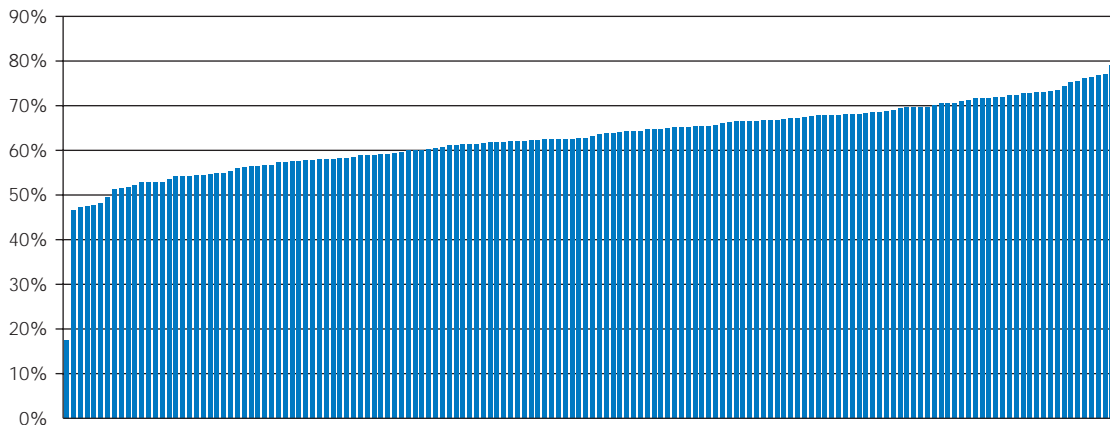
Average number of discharges by day of the week (emergency admissions only)



Trust level data 2004/05

- Nationally, on Saturdays and Sundays, over 3,000 fewer patients (admitted as emergencies) than expected are discharged from hospital.

Stroke – Percentage drop in average daily discharges at weekends



Acute hospital trusts

Trust level data 2004/05

- For patients who have suffered an acute stroke, the reduction in the weekend discharge rate (compared with the weekday average) varies from nearly 80% to less than 50% between trusts.
- For emergency acute stroke patients alone, if all NHS trusts achieved a more even discharge pattern (similar to the best performing trusts) **there would be an annual saving of 19,192 bed days or nearly £4m.**

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li><b>i</b> Review providers' weekend to weekday discharge rates for selected specialties or procedures.</li> <li><b>i</b> Review providers' length of stay for selected specialties or procedures, compared with the national average (adjusted for age, sex and social deprivation).</li> <li><b>➤</b> Use the commissioning processes to determine, in discussion with providers, appropriate lengths of stay for selected specialties and procedures.</li> <li><b>➤</b> Work within the whole system to ensure that early supported discharge schemes are aligned rather than inappropriately competing. Services such as in-reach and out-reach teams, intermediate care and other health and social community-based services need to align performance responsiveness to early supported discharge, eg by setting operational performance criteria aiming to deliver a 'pull system' seven days per week.</li> <li><b>i</b> Measure and monitor early supported discharge operational performance.</li> </ul>	<ul style="list-style-type: none"> <li><b>i</b> Measure and continuously monitor the weekend discharge rate (as a proportion of the weekday rate) for selected specialties or procedures and compare with national performance.</li> <li><b>i</b> Improve weekend discharge rates by ensuring discharge is driven by clinical factors and not hospital cyclical practices.</li> <li><b>i</b> Measure and continuously monitor the length of stay by admission type and HRG.</li> <li><b>i</b> Provide, as close as possible, real-time feedback on length of stay profile to frontline clinical staff on a regular basis.</li> <li><b>i</b> Report weekend discharge rates, length of stay and excess bed days cost for selected specialties to the board on a regular basis.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your weekend discharge rates compared with national range  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *Focus on: High volume HRGs*, NHS Institute for Innovation and Improvement  
[www.dh.gov.uk/assetRoot/04/12/23/55/04122355.pdf](http://www.dh.gov.uk/assetRoot/04/12/23/55/04122355.pdf)
- *10 High Impact Changes*, NHS Modernisation Agency, 2004  
[www.institute.nhs.uk/products](http://www.institute.nhs.uk/products)
- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
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[www.cfh.nhs.uk](http://www.cfh.nhs.uk)



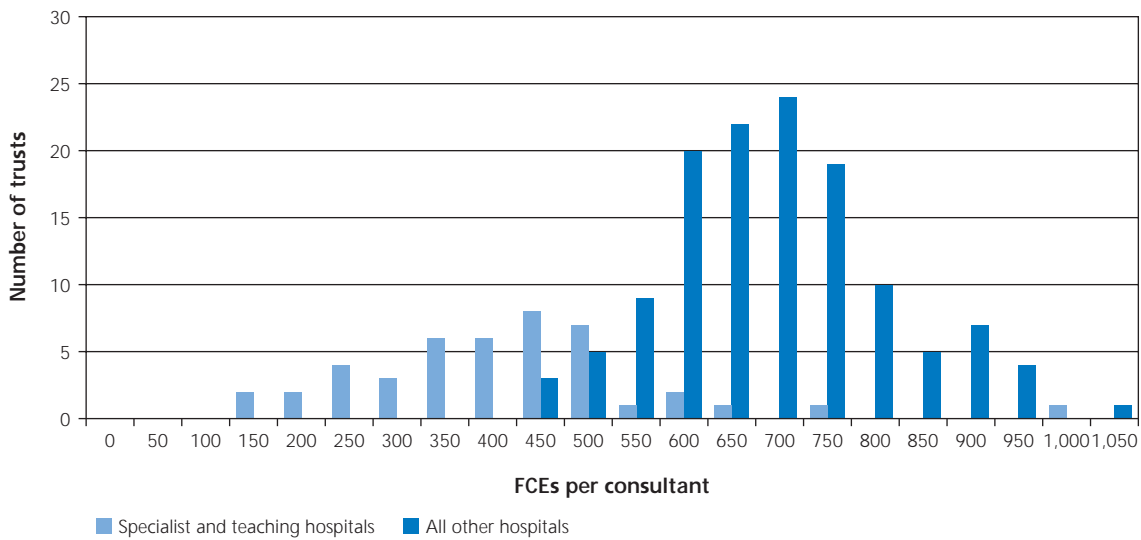
# Improve staff productivity

Most NHS resources are invested in staff. Utilising staff as effectively as possible is critical for financial efficiency, staff satisfaction and patient care.

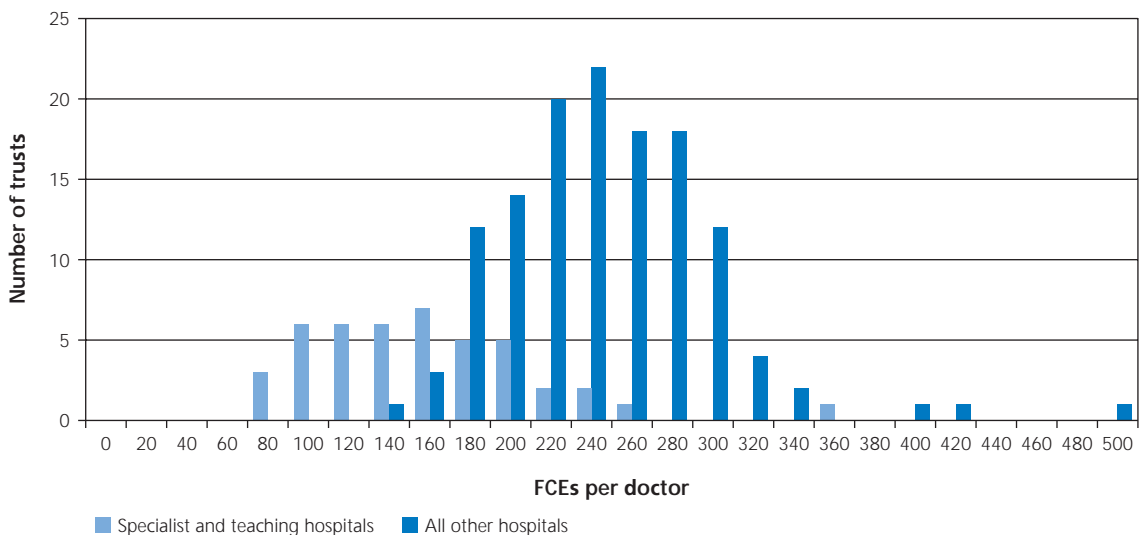
## Potential areas for improving quality and value

### Consultant and medical staff productivity

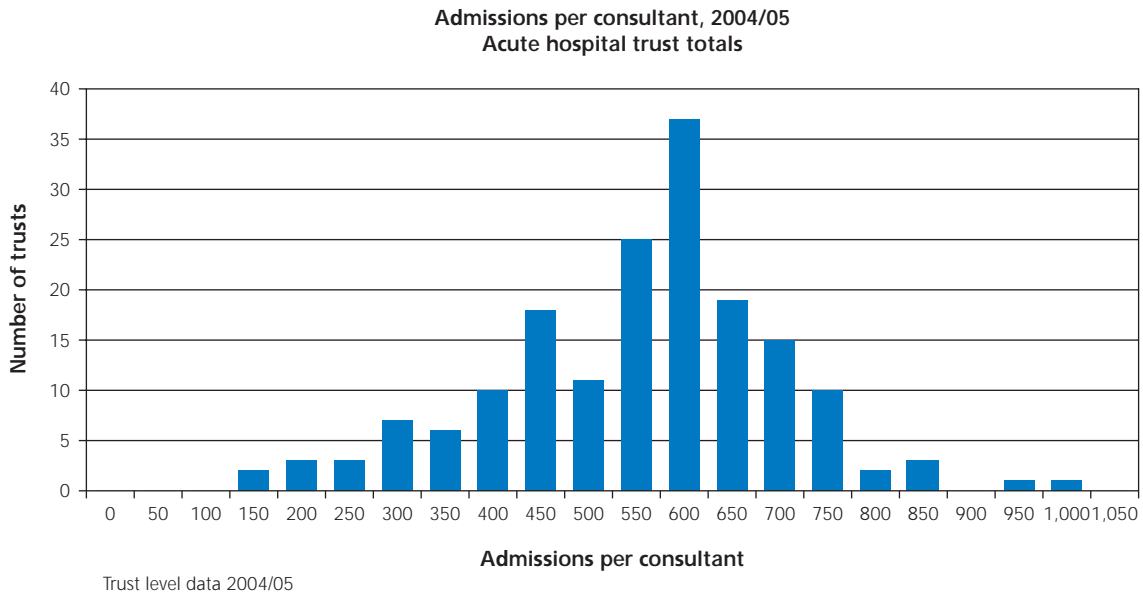
FCEs per whole-time equivalent consultant, 2004/05



FCEs per whole-time equivalent total medical staff, 2004/05



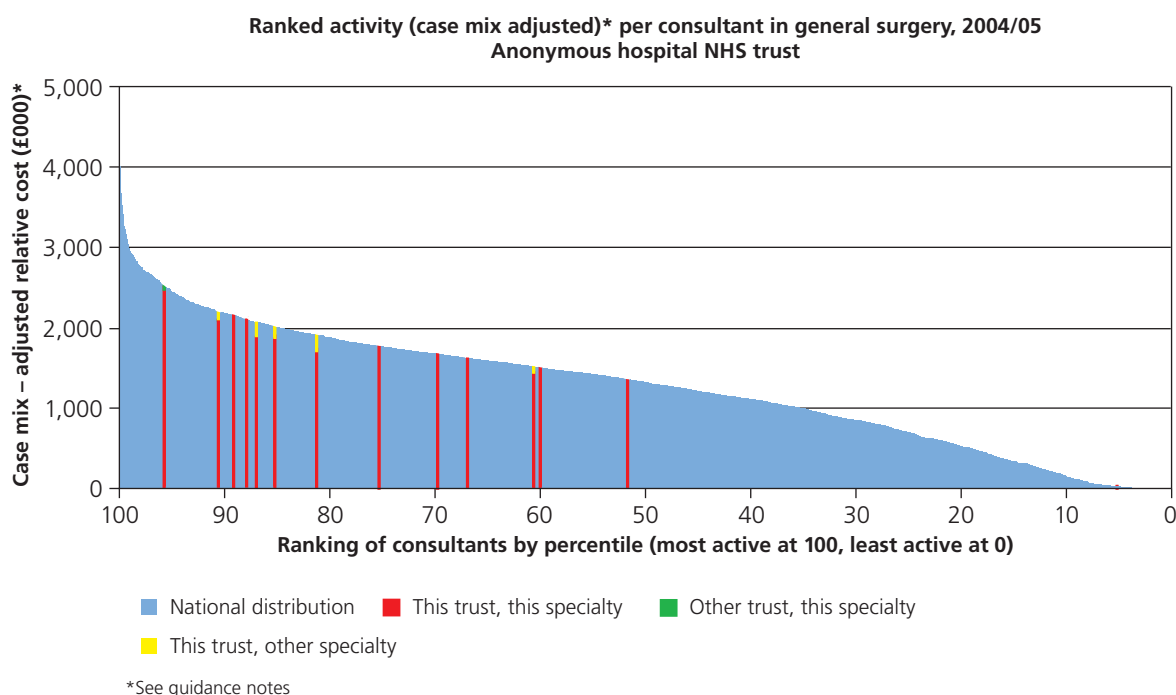
Trust level data 2004/05



- Output per member of staff is a standard measure of overall organisational productivity. Although this is difficult to calculate in healthcare owing to the complexity associated with measuring output, it can give some indication of the level of overall productivity and a pointer towards where further exploration may be needed.
- Finished consultant episodes (FCEs) and patient admissions per consultant or member of medical staff vary by over 100% between trusts.
- If all trusts with below average FCEs/staff ratios came up to the average, then staffing could be reduced by 7% for consultants and 9% for medical staff as a whole.















## Consultant productivity tool



- Examining individual consultant productivity against benchmarked peer information will help explore the drivers behind local variation in overall trust consultant productivity.
- This is a sample of the consultant productivity analysis tool that will be available to the NHS from the Department of Health in the near future.
- The tool will enable comparisons to be made locally between consultant productivity within and between organisations.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li> Discuss with providers their plans</li> <li> for monitoring and improving staff productivity.</li>   <li> Build productivity measures into short- and</li> <li> long-term workforce planning models.</li>   <li> Use productivity measures to review and</li> <li> revise skill mix aspirations.</li>   <li> Ensure all local NHS organisations are measuring their unit labour costs.</li> </ul>	<ul style="list-style-type: none"> <li> Analyse your consultant productivity data to</li> <li> identify where these are out of line with the expected levels.</li>   <li> Identify trends and drivers affecting overall</li> <li> productivity for the trust and specialties.</li>   <li>These may include:           <ul style="list-style-type: none"> <li>• use of temporary and agency staff;</li> <li>• sickness and absence;</li> <li>• other non-patient care commitments;</li> <li>• local custom, practice and expectation.</li> </ul> </li>   <li> Monitor consultant productivity by specialty and report this to the board on a regular basis.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Consultant and medical staff productivity  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- A consultant productivity tool, developed by York University and Department of Health will be issued to Trusts end June 2006  
Further information can be found on [www.dh.gov.uk/productivetime](http://www.dh.gov.uk/productivetime)
- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- Workforce projects and workforce planning resources  
[www.healthcareworkforce.org.uk](http://www.healthcareworkforce.org.uk)
- Workforce reform and large-scale workforce change  
[www.nhsemployers.org](http://www.nhsemployers.org)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)

## Actively manage staff and recruitment costs

# 9

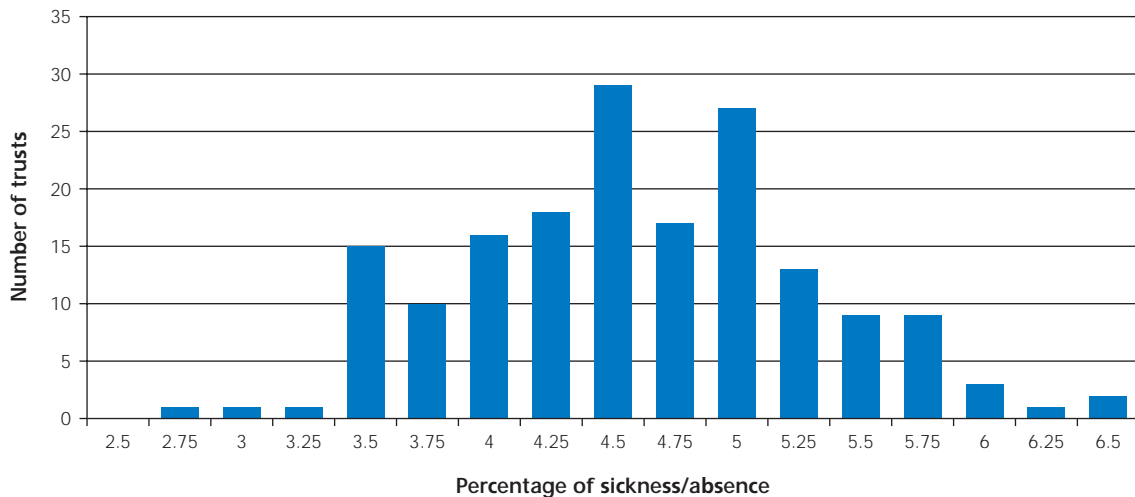
Sickness absence costs are easily identifiable and can cost an average trust £5.4m per annum. Average cost of sick absence per NHS employee according to a Chartered Institute of Personnel and Development survey was £556. The average NHS sick absence rate is 4.56%.

The average trust spends £2.3m on agency staff, which is 4.2% of its staffing costs compared with 2.9% seven years ago.

## Potential areas for improving quality and value

Sickness and absence rates – all staff

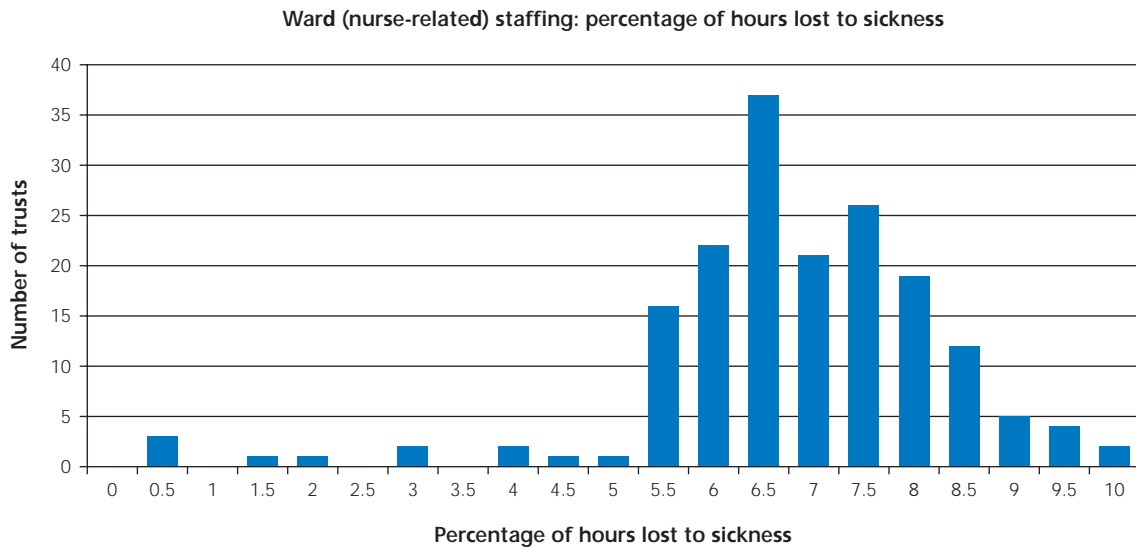
Acute hospital trusts – all staff: percentage of sickness/absence, full year 2004



Source: IACC and NHS Health and Social Care Information Centre, Sickness and Absence Survey 2004

- The sickness/absence rate for acute trusts varies from around 3% to over 6%.
- Reducing sickness and absence rates to average levels would create savings for each trust with a higher than average rate.

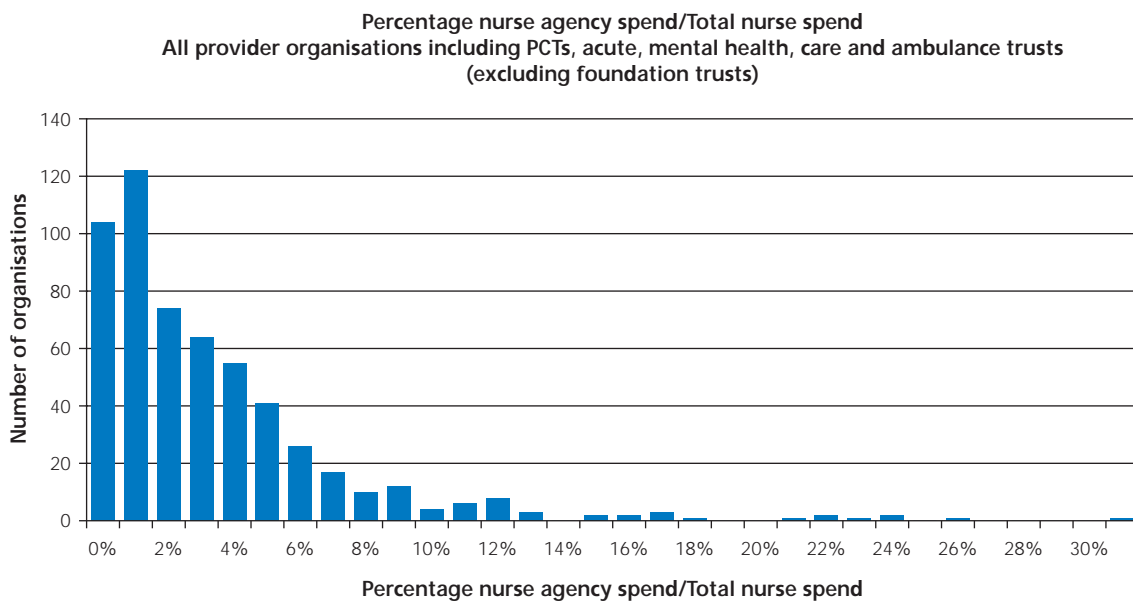
## Sickness and absence rates – ward staff



Source: IACC and Health Commission, Acute Hospitals Portfolio Ward Staffing Survey 2004

- The percentage of nursing hours lost to sickness absence ranges from less than 5% to 10% for acute trusts.
- Reducing sickness and absence rates for nursing to average levels would create savings for each trust with a higher than average rate.

## Managing agency staff use and costs








## Managing agency staff use and costs (continued)



- The percentage of expenditure on non-NHS nursing pay varies from 0% to well over 10% for NHS trusts. Based on 2004/05 data, if all NHS trusts reduced their agency spend to the national average, **we estimate that could release around £78m.**
- Electronic recruitment via NHS Jobs has the potential to **create savings of £80m per year** through a reduction in recruitment advertising spend, administration and temporary staffing costs.
- The national average expenditure on non-NHS staff is 4% of the total pay bill. The variation from this figure can be partly explained by local economic conditions, but variances also exist between organisations in the same geographic area.

## What do you need to do?

Commissioners	Providers
<ul style="list-style-type: none"> <li> Review information on productive time and seek opportunities to re-shape the way services can be delivered more effectively and/or more efficiently.</li> <li>  Explore with providers the possibilities for electronic rostering systems.</li> <li> Identify the very best practice in controlling sickness and absence rates, staff turnover rates, vacancy control, and agency spend and share this with providers.</li> <li>  Review and confirm with providers that all agencies used are on the Purchasing and Supply Agency approved list.</li> <li>  With providers, review the achievement of the NHS Professionals benchmark cost and quality standard for temporary staff.</li> </ul>	<ul style="list-style-type: none"> <li> Review national staff survey to identify measures which correlate to sickness/absence. Develop strategies to address the issues identified.</li> <li> Review implementation of 'Improving Working Lives'.</li> <li> Review examples of agency use best practice channelled through the National Agency Staffing Project.</li> <li> Measure and monitor sickness and absence rate, including patterns and trends and report this to the board regularly.</li> <li> Utilise the agency benchmarking tool that was issued by the National Agency Staffing Project (based at South West London SHA).</li> <li> Measure and monitor budget allocation for temporary staffing at ward and department level regularly.</li> <li> Collaborate with other NHS trusts to achieve maximum value for money for temporary staff in the local labour market.</li> <li>  Utilise NHS Jobs to maximise savings in advertising spend, administration and temporary staffing costs.</li> </ul>

## Resources

### Benchmarking performance information for PCTs and trusts

- Your sickness, absence and agency rates  
[www.drfoosterintelligence.co.uk/productivity](http://www.drfoosterintelligence.co.uk/productivity)

### Additional performance information for PCTs and trusts

- Individual trusts' and PCTs' performance  
[www.hsmc.bham.ac.uk/iacc/](http://www.hsmc.bham.ac.uk/iacc/)

### General resources

- *Delivering Quality and Value: Focus on HR* recommends a number of practical HR management actions that could be made to improve local financial efficiency  
[www.dh.gov.uk/productivetime](http://www.dh.gov.uk/productivetime)
- Information on 'Productive Time'  
[www.dh.gov.uk/productivetime](http://www.dh.gov.uk/productivetime) and [www.isip.nhs.uk](http://www.isip.nhs.uk)
- Information on 'Improving Working Lives'  
[www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/Model/Employer/ImprovingWorkingLives](http://www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/Model/Employer/ImprovingWorkingLives)
- *The Intelligent Board*, Dr Foster Intelligence  
[www.drfooster.co.uk/library/localDocuments/Intelligent\\_Board\\_report\\_v6.pdf](http://www.drfooster.co.uk/library/localDocuments/Intelligent_Board_report_v6.pdf)
- *Integrated Change Methodology and Guidance*, NHS Integrated Service Improvement Programme  
[www.isip.nhs.uk](http://www.isip.nhs.uk)
- *Managing Successful Programmes*, Office of Government Commerce  
[www.ogc.gov.uk](http://www.ogc.gov.uk)
- Information about NHS Connecting for Health enablers  
[www.cfh.nhs.uk](http://www.cfh.nhs.uk)
- Information about NHS Jobs  
[www.nhsemployers.org/nhsjobs](http://www.nhsemployers.org/nhsjobs) or [www.jobs.nhs.uk/aboutnhsjobs.html](http://www.jobs.nhs.uk/aboutnhsjobs.html)
- Professionals who improve the quality and reduce the cost of temporary staff through the provision of a national staff bank service  
[www.nhsprofessionals.nhs.uk](http://www.nhsprofessionals.nhs.uk)
- Purchasing and Supply Agency who negotiate agency framework agreements and manage the contracts with agencies including auditing their compliance  
[www.pasa.doh.gov.uk](http://www.pasa.doh.gov.uk)



### General resources (continued)

- NHS Employers, who provide guidance and advice to employers on the issues related to temporary staff, and who have responsibility for the identification and spreading of best practice  
[www.nhsemployers.org](http://www.nhsemployers.org)
- Case studies on best practice advice have been compiled by the National Agency Staffing Project run by South West London SHA  
[www.agencybestpractice.nhs.uk](http://www.agencybestpractice.nhs.uk)
- Chartered Institute of Personnel and Development (CIPD)  
[www.cipd.co.uk](http://www.cipd.co.uk)

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